

What is claimed is:

1. An anti-idiotypic antibody, or functional fragment thereof, that binds specifically to a chimeric or humanized antibody that binds to human TNF- α .
2. An anti-idiotypic antibody of Claim 1 which binds to said chimeric or humanized antibody at an epitope specific for human TNF- α .
3. The anti-idiotypic antibody of Claim 1, wherein the chimeric or humanized antibody that binds to human TNF- α is A2 or cA2.
4. An anti-idiotypic antibody, or functional fragment thereof, that binds specifically to an anti-TNF antibody, wherein said anti-TNF antibody competitively inhibits binding of cA2 to human TNF- α .
5. An anti-idiotypic antibody, or functional fragment thereof, which is specific for cA2.
6. An anti-idiotypic antibody of Claim 5 which binds to one or more CDRs of cA2 or A2.
7. An anti-idiotypic antibody of Claim 5 which is murine.
8. An anti-idiotypic antibody of Claim 5 which comprises an amino acid sequence selected from SEQ ID NO:3 or 5.
9. An anti-idiotypic antibody comprising a functional fragment containing an antigen binding site of an antibody specific for cA2.
10. The antibody according to Claim 9, which is selected from the group consisting of a chimeric antibody and a humanized antibody.
11. A hybridoma producing an anti-idiotypic antibody of Claim 1.
12. A kit for determination of anti-TNF- α antibodies in a sample comprising an anti-idiotypic antibody of Claim 1.
13. An anti-idiotypic antibody containing at least one antigen recognition site which mimics antigenic regions of human TNF- α , said anti-idiotypic antibody obtained from a hybridoma produced by fusing mouse splenocytes immunized with A2 or cA2 with myeloma cells.

14. An anti-anti-idiotypic antibody having the identical binding specificity to an anti-TNF- α antibody comprising at least part of a non-human immunoglobulin variable region, said anti-TNF- α antibody capable of binding an epitope specific for human TNF- α .
15. An anti-anti-idiotypic antibody having the identical binding specificity to an anti-TNF- α antibody comprising at least part of a non-human immunoglobulin variable region, said anti-TNF- α antibody capable of binding an epitope specific for human TNF- α , wherein the non-human immunoglobulin variable region comprises a polypeptide encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO: 2 and SEQ ID NO: 4.
16. An anti-anti-idiotypic monoclonal antibody or antigen binding fragment thereof having specific reactivity with an epitope specifically bound by cA2.
17. An immunoassay method for detecting anti-TNF- α antibody in a sample, comprising:
- (a) contacting said sample with an antibody to an antibody comprising an amino acid sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:5, or a TNF binding fragment thereof, in detectably labeled form; and
 - (b) detecting the binding of the antibody to said TNF.
18. An immunoassay method for detecting human TNF- α in a sample, comprising:
- (a) contacting said sample with an antibody to an anti-idiotypic antibody of Claim 1, or a TNF- α binding fragment thereof, in detectably labeled form; and
 - (b) detecting the binding of the antibody to said TNF- α .